ARCHAEOLOGICAL SURVEY OF THE LITTLE MOUNTAIN TRANSMISSION LINE AND SWITCHING STATION, NEWBERRY COUNTY, SOUTH CAROLINA

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Chicora Research Contribution 332

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ABSTRACT

This study reports on an intensive archaeological survey of a proposed transmission line and switching station in Newberry County, South Carolina. The project area, located off S-167 (Parr Road), consists of a 700 square foot tract of land along with a total of 2,000 feet of corridor for the transmission line. The corridor originates on the north side of an existing powerline and runs 1,100 feet southwest to northeast to the proposed switching station. From there the corridor extends to the southeast, again tying into the existing corridor. The work was conducted under contract with Sabine & Waters to assist Santee Cooper comply with its Section 106 responsibilities and the regulations codified in 36CFR800.

The tract is to be used by Santee Cooper for the construction of a transmission line and switching station. The proposed corridors and square parcel of land are situated on a fairly level ridge top which turns to gently sloping woodland in the western portion of the area.

The proposed route will require clearing and grubbing, followed by construction of the proposed facility and powerlines. These activities have the potential to affect archaeological and historical sites and this survey was conducted to identify and assess archaeological and historical sites which may be in the project area.

Examination of the site files at the South Carolina Institute of Archaeology and Anthropology revealed that no archaeological sites were recorded in the project area. An inquiry made to the South Carolina Department of Archives and History for any previous architectural surveys or the presence of any National Register properties, sites, districts, or objects failed to identify any structures within 1.0 mile of the proposed project.

The archaeological survey incorporated shovel testing at 100-foot intervals along the center line of the proposed corridor, which had not been surveyed at the time of this investigation. The switching station area was surveyed at 100-foot intervals along transects placed at 100-foot intervals. All shovel test fill was screened through ¼-inch mesh. This area was found to be heavily eroded, with clay subsoil within the upper 0.2 to 0.6 foot of many of the profiles. In addition, many of the tests exhibited large quantities of rock, indicative of the extreme erosion.

The survey traverses areas of cultivated fields, lightly wooded spaces, and yard area belonging to the owner. The cultivated field included both shovel testing at 100-foot intervals and a pedestrian survey. Dense numbers of rocks were exposed throughout the area and several tests did not produce an A horizon, but instead revealed a red clay at the surface.

The shovel tests failed to identify any archaeological remains, but the pedestrian survey revealed one sparse site, 38NE509, a prehistoric lithic scatter and historic site, within the cultivated field area. Also noted in the area directly next, but not within, to the survey tract is a historic cemetery, 38NE510.

As always, it is possible that unrecognized archaeological remains may be identified during construction. Construction crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3). No construction should take place in the vicinity of these late discoveries until they have been examined by an archaeologist and, if necessary, have processed according to 36CFR800.13(b)(3).

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INTRODUCTION

This investigation of the proposed Little Mountain transmission line and substation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Ken Smoak of Sabine & Waters. The work was conducted to assist Santee Cooper comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project is situated in the eastern portion of Newberry County, near its boundary with Lexington and Richland counties (Figure 1). The proposed transmission line corridor is estimated to be about 2,000 feet, with the corridor originating on the north side of an existing powerline and running 1,100 feet to the proposed switching station. From there the corridor extends to the southeast, again tying into the existing corridor. A 700 square foot parcel of land to be used for placement of a switching station is situated between the two corridors (Figure 2). Both corridor sections will tie into existing powerline easements.

The survey area consists of a small ridge top area turning into gently sloping side slopes. A cultivated field covers the ridge top and the gentle slopes around the ridge, while the more sloping areas are forested in pine and mixed hardwoods. The survey area is situated between branches of Rocky Creek, about 1,200 feet to the west and Summer Branch Creek about 1,000 feet to the east.

The corridor, as previously mentioned, is intended to be used as a transmission route for a powerline which will connect to existing lines in the area. The proposed work on the corridor will likely include some minor clearing and grubbing of the corridor, erection of the poles or construction of towers, and long-term maintenance of the corridor which will cause some damage to the ground surface and any archaeological resources which may be present in the survey area.

Construction, operation, and maintenance of the switching station will also have an impact on historic resources in the project area. Although the project will not remove any structures, switching stations (as well as other above grade projects) may detract from the visual integrity of historic properties, creating what may consider discordant surroundings.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this rural section of South Carolina. Nor does it include any architectural survey or evaluation beyond the project boundaries.

We were requested by Mr. Ken Smoak of Sabine & Waters to submit a cost proposal for an intensive survey of the project in July of 2001 and were given authorization to proceed on July 12, 2001. These investigations incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology. No previously recorded sites were recorded in or near the project area. In addition, the South Carolina Department of Archives and History GIS was consulted to check for any NRHP buildings, districts, structures, sites, or objects in the study area. No historic sites are present within a mile of the survey area, although there has been no comprehensive survey of Newberry County. Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The survey, which was designed to identify prehistoric or historic resources which may be within the project corridor or on the proposed switching station lot, was conducted July 13, 2001 by Mr. Tom Covington and Ms. Nicole Southerland. Laboratory work and report production was conducted at Chicora's laboratories in Columbia, South Carolina from July16-18.

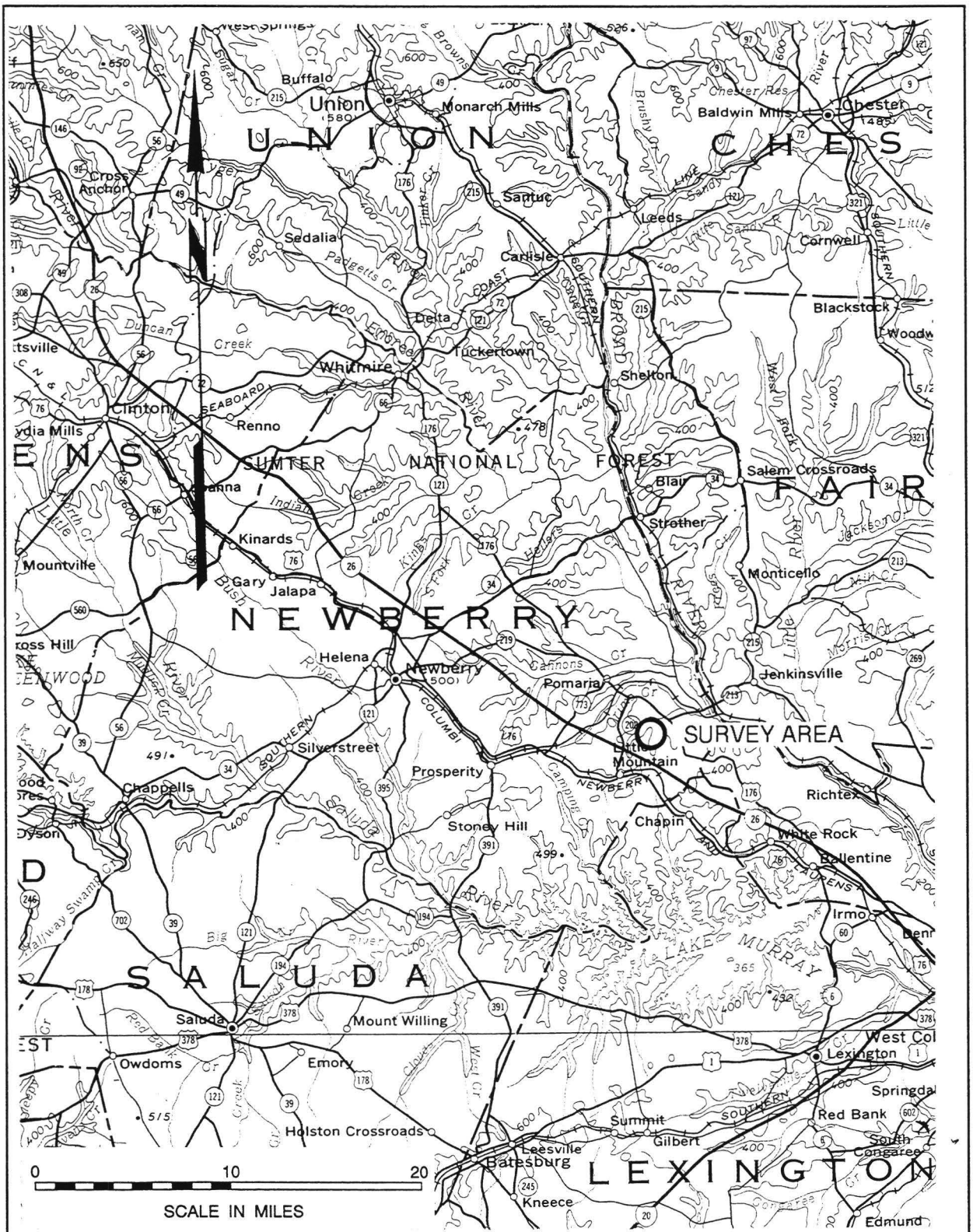

Figure 1. Project vicinity in Newberry County (basemap is USGS South Carolina 1:500,000).

Figure 2. Survey area (basemap is Little Mountain 7.5' USGS)

NATURAL ENVIRONMENT

Physiographic Province

Newberry County is bounded to the north by Union County, to the west by Laurens County, to the south by the Saluda River and Greenwood, Saluda and Lexington counties, and to the east by the Broad River and Richland and Fairfield counties.

The county is located within the Piedmont region. Physiographically, the county is a thoroughly dissected plain. The relief ranges from nearly level to steep, but it is dominantly gently sloping to moderately steep (Camp 1960:1). In the project area elevations range from about 420 feet above mean sea level (AMSL) to about 470 feet AMSL. In general the elevations drop to the south, toward Lake Murray which separates Newberry County from Saluda and Lexington Counties.

The drainages form a dendritic pattern and throughout the Piedmont this terrain has been extensively dissected and degraded. The Broad River drains the northern and eastern portions of the county, and the Saluda River drains the southern and western areas. Numerous smaller streams (such as those which drain southward on either side of the project area) are found throughout the county.

Geology and Soils

Most of the rocks of the Piedmont are gneiss and schist, with some marble and quartzite (Hasselton

Figure 3. View of the field and dirt road through the project area.

1974). Some less intensively metamorphosed rocks, such as slate, occur along the eastern part of the province from southern Virginia into Georgia. This area, called the Slate Belt, is characterized by slightly lower ground with wider river valleys. Consequently, the Slate Belt has been favored for reservoir sites (Johnson 1970), as well as prehistoric occupation (see Coe 1964). In Newberry County the soils are formed in saprolite that weathered from crystalline rocks and "Carolina slates". Soils from the river floodplains formed in sediment that washed from the uplands of the Piedmont province.

The project area is primarily situated on Lloyd sandy loams, characterized as the gently sloping phase. Some portions of the project area are classified as the eroded sloping phase of Lloyd, which occurs at the base of the gently sloping soils. Most of the eroded areas has reverted to forest land and in some cases the surface soil has been removed by erosion (Camp 1960). Also found within the survey area, but in smaller amounts are Cecil sandy loams. Both soil types have a red clay subsoil.

Lloyd sandy loams dominate the cultivated field area of the survey tract. These soils have been extensively plowed and generally have an Ap horizon of dark brown (7.5YR4/4) sandy loam to 0.6 foot, although many shovel tests were stripped of this layer and started with a B1 horizon of red (2.5YR4/6) clay loam which could occur to depths over 2.0 feet.

The southwestern arm of the survey corridor showed evidence of Cecil sandy loams. The A1 horizon consists of a brown (7.5YR5/4) sandy loam to 0.4 foot over an A2 horizon of yellowish-brown (10YR5/8) sandy loam down to 1.0 foot. A red (2.5YR5/8) clay loam, developed where the original surface layer had been removed by accelerated erosion, occurs to just over 1.3 feet, while red (2.5YR5/8) clay makes up the subsoil (Camp1960).

Only a few shovel tests along the southeastern arm of the corridor produced Enon sandy loams. This series produces a 1.0 inch layer of very dark grayish-brown (10YR3/2) sandy loam over a brown (10YR4/3) sandy loam to a depth of 0.6 foot. The subsoil consists of a strong-brown (7.5YR5/6) clay.

In fact, the 1934 South Carolina Erosion Survey by M.W. Lowry found that this portion of Newberry County exhibited severe sheet erosion with occasional gullies (Lowry 1934). This portion of Newberry County has lost up to 0.7 foot of soil through erosion in the nineteenth and early twentieth centuries (Trimble 1974:3). It is part of the area classified by Trimble as having high antebellum erosion land use with postbellum continuation and belonging to his Region III — the Cotton Plantation Area (Trimble 1974:15).

Within recent times this area has been logged, likely increasing soil loss originating during earlier agricultural activities. The United States Forest Service has determined that logging accounts for upwards of 0.36 tons of soil erosion per acre per year in this region, while areas of skid trails have erosion rates of about 9.91 tons per acre per year (U.S. Department of Agriculture 1980:25). This is clearly evidenced in the shovel testing program conducted in areas near the project tract.

In 1826 Robert Mills remarked that there were four types of soil present in the county, including clays, sands, gravels, and "stony" soil. He noted that:

> The lands are too much neglected; no system of manuring them when they begin to fail is pursued. The practice has been to turn them out; the consequence of which is, that they are washed into gullies and destroyed (Mills 1826: 653).

Fairfield planter William Ellison remarked in 1828 that "the successful cotton planter sits down in the choicest of his lands, slaughters the forest, and murders the soil" (quoted in Ford 1988:38). In 1842 agricultural reformer Edmund Ruffin warned of impending disaster from the reliance on cotton and observed that little effort was being made to protect the land (Ruffin 1843:73).

In spite of these early warnings, the South Carolina Department of Agriculture, Commerce, and Immigration, as late as 1907, found no reason to remark on the threat of erosion, noting only that "the

second best cotton lands are found in [nearby] Anderson and Laurens Counties" (State Department of Agriculture, Commerce, and Immigration 1907:255). Newberry itself boasted of six cotton seed oil mills and ranked eighth in cotton production in 1904, increasing to sixth in 1906 (State Department of Agriculture, Commerce, and Immigration 1907:269, 288).

Climate

Elevation, latitude, and distance from the coast work together to affect the climate of South Carolina, including the Piedmont. In addition, the more westerly mountains block or moderate many of the cold air masses that flow across the state from west to east. Even the very cold air masses which cross the mountains are warmed somewhat by compression before they descend on the Piedmont.

Consequently, the climate of Newberry County is temperate. The winters are relatively mild and the summers warm and humid. Rainfall in the amount of 44 to 48 inches is adequate, although less than in some neighboring counties. About 24 to 28 inches of rain occur during the growing season, with periods of drought not uncommon during the summer months. As Hilliard illustrates, these droughts tended to be localized and tended to occur several years in a row, increasing the hardship on those attempting to recover from the previous year's crop failure (Hilliard 1984:16). Perhaps the best wide-scale example of this was the drought of 1845, which caused a series of very serious grain and food shortages throughout the state.

The average growing season is about 221 days, although early freezes in the fall and late frosts in the spring can reduce this period by as much as 20 or more days (Camp 1960:2). Consequently, most cotton planting, for example, did not take place until early May, avoiding the possibility that a late frost would damage the young seedlings.

Floristics

Piedmont forests generally belong to the Oak-Hickory Formation as established by Braun (1950). The potential natural vegetation of the area is the Oak-Hickory-Pine forest, composed of medium tall to tall forests of broadlead deciduous and needleleaf evergreen trees (Küchler 1964). The major components of this ecosystem include hickory, shortleaf pine, loblolly pine, white oak, and post oak. In actuality, the Piedmont is composed of a patchwork of open fields, pine woodlots, hardwood stands, mixed stands, and second growth fields. Shelford (1963) includes the Carolina Piedmont in the Oak-Hickory zone of the Southern Temperate Deciduous Forest Biome.

Today the "patchwork" is more than ever clearly visible. The survey corridor includes a grassed yard, a cultivated field, and lightly forested areas of pine and hardwoods. There is virtually no vegetation in the project area that is consistent with the native forests of the area.

PREHISTORIC AND HISTORIC OVERVIEW

Previous Research

The Piedmont has been the focus of considerable archaeological research. Derting et al. (1991), for example, cite 93 studies specific to Newberry County. Virtually all of these are compliance related, with 62% being surveys or similar studies produced by the U.S. Forest Service on their Sumter National Forest lands. The next most common studies are those produced by the South Carolina Department of Highways, with their surveys accounting for an additional 26% of the pre-1991 literature for the county.

There is no single synthesis of the area's archaeology. An overview of the Sumter National Forest was prepared by Patricia Logan nearly two decades ago, but has not been published (Logan n.d.). Other researchers, however, have provided considerable information on the region. In particular, the Paleoindian and Early Archaic is carefully explored by a variety of authors in an edited volume by Anderson and Sassaman (1996). These same researchers have also explored the Middle and Late Archaic (Sassaman and Anderson 1994). The Woodland and Mississippian is less well researched for the Piedmont, although Anderson (1994) does provide a generalized overview.

Research at the South Carolina Department of Archives and History revealed that there are no National Register buildings, districts, structures, sites, or objects in the survey area. In addition, no archaeological sites are recorded at the South Carolina Institute of Archaeology and Anthropology for the general area of this study.

Prehistoric Overview

In the Carolina Piedmont, lithic scatters are the most common type of prehistoric site encountered. Goodyear et al. (1979:131-145) found that lithic scatter sites located in the inter-riverine Piedmont were geographically extensive and exhibited little artifact diversity. These sites have been interpreted as:

> limited or specialized activity sites which represent resource exploitation or other distinct functions. Nearly all investigators working in the Piedmont have related these sites to activities involving hunting, nut gathering, and procuring of lithic raw materials (Canouts and Goodyear n.d.:8).

Although the vast majority of these sites are located in eroded areas and exhibit little to no subsurface integrity, Canouts and Goodyear (1985) argue that they have analytical value. This value lies in their horizontal rather than vertical dimensions. They argue that:

> [f]uture investigators of upland sites must effect broad-scale spatial analyses comparable to the temporal analyses effected through excavation of deeply stratified sites. Both endeavors are necessary, and neither is sufficient for the total understanding of Piedmont prehistory" (Canouts and Goodyear 1985: 193).

One observation that Canouts and Goodyear (1985) made is that lithic raw material ratios change through time. For instance, at the Gregg Shoals site in Elbert County, Georgia, the Early Archaic assemblage reflects greater use of non-local cryptocrystalline materials and the Late Archaic, greater use of non-quartz local material (see Tippitt and Marquardt 1981). Examination of changing use of lithic resources will help archaeologists better understand issues such as the extent of seasonal rounds, trade networks, and social organization. Clearly, the discussions by Canouts and

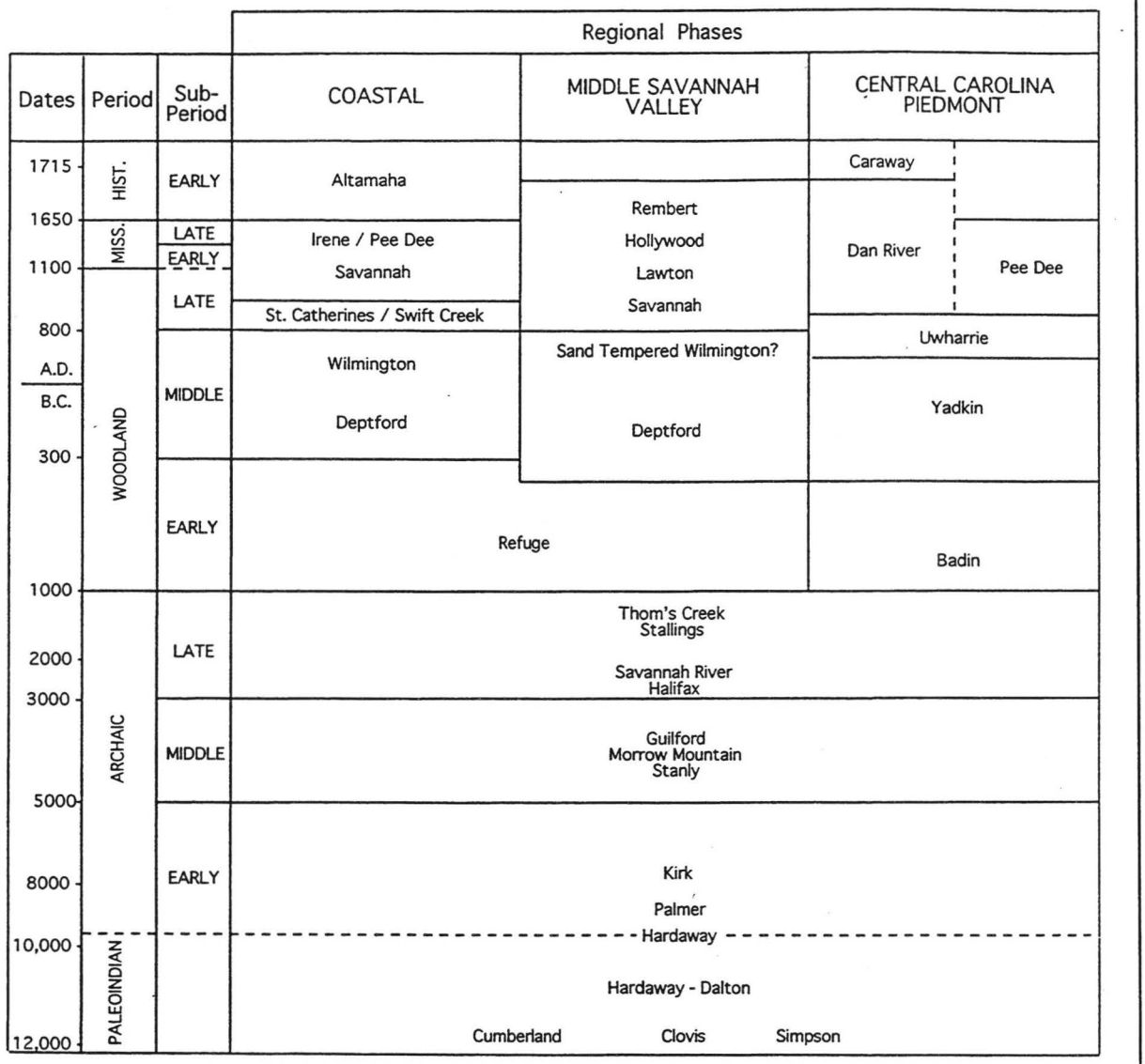

Figure 4. Generalized cultural sequence for South Carolina.

Goodyear (1985) argue strongly for a higher regard for the "lowly" lithic scatter — a very common occurrence in the Piedmont.

Figure 4 provides an overview of the cultural sequence commonly found in the Piedmont of South Carolina.

Paleoindian Period

The Paleoindian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977). The Paleoindian occupation, while widespread, does not appear to have been intensive. Points usually associated with this period include the Clovis and several variants, Suwannee, Simpson, and Dalton (Goodyear et al. 1989:36-38).

Unfortunately, little is known about Paleoindian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Very little work in the state has been able to focus on Paleoindian settlements because of the rarity of the site type. No evidence was found for Paleoindian occupation in the Laurens-Anderson inter-riverine area, which is not surprising since elsewhere in the state these sites are usually found clustered along major drainages and their tributaries which is interpreted by Michie (1977:124) to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna."

One site identified in the Sumter National Forest (Price 1992), in neighboring Laurens County, is believed to have a possible Paleoindian component (38LU317). It is situated on a ridge saddle adjacent to a spring which feeds into the Enoree River, located only about 0.3 miles to the north. This fits well with previous arguments that Paleoindian sites will be located adjacent to major drainages.

Anderson (1992:32) suggests that the comparatively low density of Paleoindian diagnostics in South Carolina may be because the state could have been on the edge of the ranges of groups centered in other areas. He suggests that permanent settlements elsewhere probably occurred later in the Paleoindian period, only when population levels had grown appreciably in these centers. This would help to explain the overlap in stylistic traditions (such as the Clovis, Suwannee, Simpson, and Dalton) observed in South Carolina which perhaps resulted from populations expanding outward from these centers.

Archaic Period

The Archaic period, which dates from 8000 to as late as 500 B.C. in the Piedmont, does not form a sharp break with the Paleoindian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Archaic period assemblages, characterized by corner-notched, side-notched, and broad stemmed projectile points, are common in the vicinity, although they rarely are found in good, well-preserved contexts (for a thorough discussion of the Early Archaic, see Anderson and Sassaman 1996, while Anderson and Joseph (1988) offer a review of prehistoric archaeology along the upper Savannah River).

Prehistoric sites in the Piedmont inter-riverine zones are for the most part characterized as "upland lithic scatters" (House and Wogaman 1978:xii). These sites are shallow deposits without stratigraphic definition, contain a diversity of artifacts, and are commonly disturbed by plowing and/or erosion (Canouts and Goodyear 1985; Trinkley and Caballero 1983:27).

Early Archaic

During the Laurens-Anderson study (Goodyear et al. 1979), four sites with Early Archaic components were identified. Each of these sites

contained a single example of Dalton[1] points or probable Dalton preforms made of indigenous Piedmont quartz. The following Palmer phase was found to be very common in the area and was represented by 28 sites. While most of the specimens were manufactured from the local quartz, some were manufactured from Coastal Plain chert from the Flint River formation located in the lower coastal plain of South Carolina and Georgia. There were also examples of metavolcanic rhyolite from the Carolina Slate Belt and what may be "Ridge and Valley chert" from eastern Tennessee.

At these sites a wide range of tool types were identified including a large number of unifacial and flake tools believed to be associated with the Early Archaic occupation. Goodyear et al. (1979:197) found that while Early Archaic sites with unifaces were found throughout the corridor, sites on ridgetops which were large watershed divides produced higher counts. They believe that the large number of sites producing Palmer points is related to environmental changes at that time. The large diversity in lithic raw material provided information regarding their "mobility patterns and regions of interactions" (Goodyear et al. 1979:198).

Anderson and Hanson's (1988) band/macroband model of Early Archaic settlement was formulated primarily to evaluate data from the Savannah River basin. In the Savannah River Valley, settlement organization of the Early Archaic people was "characterized by the use of a logistically provisioned seasonal base camp or camps during the winter, and a series of short-term foraging camps throughout the remainder of the year" (Anderson 1992:36). During the early spring, the groups are believed to have moved toward the coast, then back into the upper coastal plain and piedmont during the later spring, summer, and early fall. During the winter they returned to their base camp incorporating some side trips to other drainages for aggregation events by groups from two or more different drainages. These aggregation sites are believed to have been located on Fall Line river terraces (Anderson 1989a:36). One example of a postulated base camp is the G.S. Lewis site at the Savannah River Site. This site is located on a ridge adjacent to the confluence of Upper Three Runs Creek and the Savannah River. Given this scenario for the Savannah River basin (which likely applies to other river basins), Early Archaic sites in the Piedmont were likely occupied from summer until fall and don't include aggregation sites. Anderson and Hanson (1988) place the Upper Piedmont in the Saluda/Broad macroband settlement system. At the band level, they proposed "co-residential population aggregates" consisting of 50 to 150 people which occupied and moved primarily within one drainage basin. They projected that individual macroband population was between 500 and 1500 people. They also formulated a spatial model for the distribution of individual bands over the South Atlantic Slope.

Anderson (1989b) notes that data from the Savannah River Site and the Richard B. Russell Reservoir "suggest that a decline in utilization of the Coastal Plain may have occurred at the same time as an increase in utilization of the Piedmont [and] may be a part of a trend noted in the terminal Early Archaic in the general region. Settlement patterning in any given area was thus likely shaped by a range of variables, such as local resource structure, as well as by more regional trends in climate, population density, and these patterns apparently changed appreciably over time" (Anderson 1992:39). Data from the Laurens-Anderson study and the Savannah River project suggests that inter-riverine sites will be found on hills between watershed divides and riverine sites will be located on knolls adjacent to a major confluence.

Middle Archaic

Morrow Mountain and Guilford points constituted the primary evidence for Middle Archaic (5000 to 3000 B.C.) occupation in the Laurens-Anderson corridor (Goodyear et al. 1979). Morrow Mountain constituted the vast bulk of these projectile

[1] Some researchers (see, for instance, Anderson 1992) classify Dalton as Paleoindian while others (Goodyear et al. 1989) classify it as Archaic.

points and were present in both the I and II varieties.[2] Over 95% of the 145 points were manufactured from the local quartz, which parallels other findings in Piedmont South Carolina. Guilford was not nearly as prominent and consisted of 35 finished specimens or preforms, all of which were manufactured from quartz.[3]

The Middle Archaic period was found to consist of the largest number of sites. In terms of geographic distribution, Goodyear et al. (1979) found that the Morrow Mountain phase was much like the Palmer phase, with sites occurring on ridges between watersheds. However, the almost complete reliance on local quartz separates the Morrow Mountain and Guilford phase sharply from the earlier Palmer phase. They suggest that "[t]he large number of Middle Archaic sites well dispersed through the inter-riverine areas and the abundant nature of chipped quartz remains on these sites suggest frequent movement and activity throughout the Piedmont of South Carolina" (Goodyear et al. 1979:207). Data from early reservoir projects (see, for example, Wauchope 1966) as well as inter-riverine observations by Caldwell (1954; 1958) and Coe (1952) made it clear that there were sharp contrasts between riverine and inter-riverine sites in terms of artifact diversity and density, and in the use of shellfish (Sassaman and Anderson 1994:134). With the advent of cultural resource management in the 1970s, additional data was available and further emphasized these differences. All of this data indicated that the largest and densest sites were located along large rivers, and that small, sparse sites were found throughout the uplands. While these differences were clear, what remained unclear was the relationship between riverine and inter-riverine sites in a settlement-subsistence system, and how, if at all, this system changed over time (Sassaman and Anderson 1994:135).

House and Ballenger studied this issue during their survey work on the proposed Interstate 77 project in 1976. They classified riverine zones of containing only the largest rivers while inter-riverine zones consisted of smaller rivers and streams. House and Ballenger (1976) argued that streams with a ranking of 3 or higher[4] contained resources that were not abundant in the uplands (fish, turtle, raccoon, etc.), whereas smaller streams had a higher density of deer and nut masts. The resulting archaeological assemblages from these distinct areas should, themselves, be distinct (House and Ballenger 1976; Sassaman and Anderson 1994). They divided their sites into habitation and extraction sites[5] using a lithic tool classification scheme that would allow functional sorting of the two site types. From the information gathered using this analysis, coupled with data on the seasonal availability of resources, they created a Middle and Late Archaic settlement model:

> involving spring and summer residence along major rivers; a move to seasonal base camps in upland creek valleys in September to take

[2] Coe (1964) describes Morrow Mountain I as a small triangular blade with a short pointed stem, while the Morrow Mountain II is described as a long narrow blade with a long tapered stem. While he describes them as different types, he notes that many people have chosen not distinguish between the two.

[3] Preforms represent an intermediate stage between flakes from secondary cores and quarry blades. Some are worked bifacially, although most are unifacial and still retain the platform and bulb of percussion. Quarry blades are usually bifacially worked and are made to allow easy transportation of lithic materials until the time it is needed to be made into a projectile point. Some researchers have used the terms preform and quarry blade interchangeably, meaning the bifacially worked ovate blade.

[4] According to the system, based on Strahler (1964) 1st order streams are the fingertip tributaries at the head of a stream and may either be year-round or seasonally flowing streams. A 2nd order stream is formed by the confluence of two 1st order streams. A 3rd order stream is formed by the confluence of two 2nd order streams, etc. This system requires that at least two streams of a given order be joined to form a stream of the next highest order. The main stem of a river will always have the highest order.

[5] An extraction site is an area where resources (such as fish, lithic raw material, etc.) were obtained and is often represented by lithic debitage and perhaps small camp sites. A habitation site is a seasonal or temporary camp where these resources were usually consumed, used, or worked.

> advantage of deer concentration in upland hardwood zones, with some exploitation of other resources as well; and then a return to riverine-located winter quarters with permanent houses in about December when the coldest months arrived, the deer rutting season came to an end, and the acorn mast in the hardwood forests began to be exhausted (House and Ballenger 1976:117).

The Windy Ridge site (House and Wogaman 1978), while fitting the expected upland site profile as proposed by House and Ballenger (1976), may have been used as a habitation site during the Middle Archaic. Other projects also complicated the model. Work in the Richard B. Russell Reservoir (Anderson and Schuldenrein 1985; Tippett and Marquardt 1981) examined a number of sites with Morrow Mountain components. Interestingly, none of these riverine sites produced denser or more diverse remains than did inter-riverine sites. This suggested that Middle Archaic people were not using the riverine and inter-riverine areas much differently in this part of the state (Sassaman and Anderson 1994:137).

Sassaman (1983) attempted to more closely examine Middle and Late Archaic settlement patterns by examining sites from a number of piedmont studies. He found that Middle Archaic settlement in the South Carolina Piedmont did not fit the riverine-inter-riverine model. This suggested that Middle Archaic people were much more mobile, perhaps moving residences every few weeks which fit Binford's (1980) definition of a foraging society. Binford (1980) proposed that foragers had high levels of residential mobility, moving camps often to take advantage of dispersed, but similar resource patches. Collectors stayed in one location longer, by sending out specialized work parties to exploit resources in widely dispersed and distinct resource patches. He believed that differences in environmental structure could be traced to large scale climactic factors. He further noted that a collector system could arise under any conditions that limited the ability of hunter-gatherers to relocate residences. During his work in the Haw River area of North Carolina, Cable (1982) argued that postglacial warming at the end of the Pleistocene led to increased vegetational homogeneity which encouraged foraging.[6]

Sassaman (1983) suggests that this indicates a large degree of homogeneity of the piedmont environments. They also had a high degree of social flexibility, allowing them to pick up and move when needed. This high level of mobility did not allow them to transport much material, which in turn, alleviated the need for elaborate or specialized tools to procure and process resources at locations distant from camp. Since quartz is practically everywhere in the piedmont, tools could be easily replaced and were expedient. The high mobility and the expediency of tools helps to explain the abundance of Middle Archaic sites in the piedmont without having to imply a population explosion. Sassaman called this model the "Adaptive Flexibility" model (Sassaman 1983; Sassaman and Anderson 1994).

Late Archaic

Savannah River Stemmed and Otarre[7] stemmed points are the primary indicators of Late Archaic settlement in the Laurens-Anderson study area. Ten Savannah River phase sites and seven Otarre phase sites were identified. Quartz tools, which were found in overwhelming abundance at earlier sites, consisted only of about 57% of the Savannah River assemblage. Other materials included "silicates, volcanic slate/argillite, and unknown igneous/metamorphic" (Goodyear et al. 1979:207). The Otarre assemblage reflected a trend away from igneous/metamorphic rock, with a concentration of quartz and siliceous materials. The incorporation of more types of lithic raw material as well as the fact that Late Archaic diagnostics are much fewer than Middle Archaic diagnostic artifacts indicates a sharp decrease in residential mobility.

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[6] Since the vegetation was homogeneous and there were no concentrations of resources people moved from place to place foraging rather than settling near or in these resource concentrations.

[7] According to Oliver (1981) the Otarre type is contemporaneous with the Savannah River stemmed type and fall within the category of "Small Savannah River Stemmed".

Many of these Late Archaic sites produced fire cracked rock which was found on major ridges between watersheds. Goodyear et al. (1979:209-210) found that the inter-riverine picture of the Late Archaic contrasted quite sharply with river sites. Artifacts at riverine sites were diverse and included steatite vessels and netsinkers[8], ground stone axes, rock mortars and handstones, atlatl weights, and chipped stone drills. In the upland sites, the assemblage consists almost entirely of chipped stone bifaces and debitage. Purrington (1983) also noted this trend for the mountain region of North Carolina. At the Savannah River Plant, both riverine and upland sites contained a full range of tools, but no architectural features have been located.

Soapstone became an important lithic resource in the Late Archaic period for manufacturing of cooking vessels, and a number of soapstone quarries have been identified in Spartanburg and Cherokee counties (Ferguson 1976). Unfortunately, little is known about patterns in local soapstone use, although Elliott (1981) argues that soapstone exchange in the upcountry was facilitated by local reciprocal relationships. Soapstone was also probably used as a mechanism to maintain long distance relationships through long distance trade. Sassaman et al. state that:

> [c]ompared to sites in the upper and lower reaches of the Coastal Plain, a higher proportion of sites in the middle portion of the plain contain soapstone artifacts. This may indicate that soapstone distributions were not merely the result of distance-decay from sources, but were much more dependent on the social composition of exchange alliances (Sassaman et al. 1988:90).

For the Late Archaic, John White (1982) also applied a riverine/inter-riverine dichotomy. He demonstrated that riverine sites were much more dense and diverse than inter-riverine sites, but also identified the existence of diverse and sometimes dense assemblages at upland sites. He argued that they were habitation camps during periods of seasonal dispersal from riverine aggregation bases.

Although Steven Savage (1989) has proposed a "Late Archaic Landscape" model, a number of researchers (i.e. Anderson 1989a; Cable 1994; and Rafferty 1992) have noted that his study was seriously flawed by the "misappropriation of data from the Richard B. Russell survey" (Sassaman and Anderson 1994:142). The purpose of the work was to attempt to apply the locational methods of GIS to the analysis of Late Archaic social systems in the Upper Savannah River Valley. However, he only chose to use early intensive survey data and ignored subsequent data from testing and excavation. In addition, he chose to ignore problems such as multicomponentcy and representativeness (Cable 1994). Although it was considered a noteworthy study since it was the first to use Geographic Information Systems (GIS) for the analysis of settlement distribution, "the errors detract from the potential value of Savage's approach" (Sassaman and Anderson 1994:142).

Woodland Period

The Woodland period begins, by definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast and much later in the Carolina Piedmont, about 500 B.C. Regardless, the period from 2000 to 500 B.C. was a period of tremendous change.

The subsistence economy during this period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish. Various calculations of the probable yield of deer, fish, and other food sources identified from some coastal sites indicate that sedentary life was not only possible, but probable. Further inland it seems likely that many Native American groups continued the previous established patterns of band mobility. These frequent moves would

[8] Sassaman (1991:87-88) states that "perforated and grooved objects are common items in Late Archaic assemblages of the Savannah River Valley. Both the grooved and perforated varieties have been referred to as "netsinkers", but the more common perforated slave was apparently used as a cooking stone."

allow the groups to take advantage of various seasonal resources, such as shad and sturgeon in the spring, nut masts in the fall, and turkeys during the winter.

Early Woodland

Brooks and Hanson (1987) noted significant changes in the density and distribution of upland tributary sites during the Woodland period in the Steel Creek area of the Savannah River Plant. Brooks proposed that as tributary associated habitats became more productive with floodplain maturation that upland tributary terraces became areas of more permanent occupation. For the Savannah River area, the data suggested to Brooks that annual settlement ranges in the Early Woodland period were restricted to tributary watersheds (Sassaman et al. 1990:315).

Artifacts typical of the Early Woodland in the Upper Piedmont consist of Dunlap and Swannanoa ceramics (similar to the Kellog focus of Northern Georgia). The Dunlap series is characterized by a medium to coarse sand paste, fabric impressions, and vessels with a simple jar or cup form. The Swannanoa ceramics, with heavy crushed quartz temper, are cord marked or fabric impressed conoidal jars and simple bowls. Other surface treatments consist of simple stamping, check stamping, and smoothed plain (Keel 1976:230). Early Woodland projectile point types consist of Savannah River Stemmed (and its variants) and Swannanoa Stemmed.

Land use during the Early Woodland period in some areas of the Piedmont suggests extensive use of the inter-riverine zone. Two sites (one in Greenville County and one in Laurens County) contained dense remains and were located on the south face of a slope adjacent to springs. Goodyear et al. (1979:230) suggest that these sites "reflect a fall-winter occupation period with subsistence activities primarily related to nut gathering and deer hunting. If these two sites in fact represent fall-winter base camps it would represent a strong break with previous Archaic systems and their settlement strategies for exploiting inter-riverine biotic resources". Based on these previous studies, Early Woodland sites are most likely to be found adjacent to springs or the upland terraces of tributaries.

Middle Woodland

The Middle Woodland period is found "virtually lacking" in the Laurens-Anderson inter-riverine zone. One densely occupied site in adjacent Laurens County was found in an unusually large floodplain of a rank 2 stream. Goodyear et al. state that:

> [g]iven the habitation like character of this site, plus the large number of simple stamped bearing floodplain sites along larger streams such as the Reedy River, it is tempting to see agriculture playing a role in the apparent re-orientation to flood-plain environments during the middle Woodland period in the Piedmont environment. In this regard, the middle Woodland period sites and their locations would seem to presage the late prehistoric Mississippian period pattern during the latter, where large agriculturally related villages were constructed along fertile stretches of floodplain (Goodyear et al. 1979:230-231).

This new pattern is also reflected in the Savannah River Valley where Savannah terrace sites at the mouth of Upper Three Runs Creek were being occupied again for intensive settlement. Midden accumulations at several sites indicate long term occupation or repeated occupations of these sites by relatively large groups (Sassaman et al. 1990:315).

Pottery typical of the Middle Woodland in the Upper Piedmont consists of the Pigeon and Cartersville series. Pigeon is quartz tempered with surface treatments of check stamping, simple stamping, and brushing. The Cartersville type is characterized by sand or grit paste with the primary surface treatment being cordmarking, although there are also check stamped and simple stamped varieties. The Cartersville series is thought to be closely related to the Deptford series on the Coast. Anderson and Schuldenrein (1985:720) suggest that Cartersville continues well into the Late Woodland period. Projectile points typically

found in association with these pottery are the Pigeon Side Notched and Corner Notched types.

Testing at 38LU107 (Wood and Gresham 1981) demonstrated that one of the most intensive occupations of this multicomponent site was during the Middle Woodland period. This site is located on a knoll adjacent to South Rabon Creek, near its confluence with North Rabon Creek. A number of features were encountered including a large, deep pit, post holes, and a stone hearth. This indicated that even sites on plowed knolls can and do produce subsurface features.

Since the Middle Woodland period reflects a new pattern of settlement, questions regarding how quickly this change occurred and how the transition to horticulture affected their material culture should be examined. Clearly, this change did not occur over night and perhaps examination of radiocarbon dates from upland and riverine sites during this transition period will begin to clarify questions regarding change in lifeways.

Late Woodland

Small triangular points which are generally believed to be diagnostic of the Late Woodland and Mississippian periods consisted of 12 examples in the Laurens-Anderson study. Ten of these were manufactured from quartz while the other two where manufactured from either rhyolite or a Piedmont silicate. These projectile points were typed as "Mississippian triangulars" and included what they believed were Uwharrie or Pee Dee Triangular types and the Hamilton Incurvate Triangular type. Napier and Connestee Series pottery are typical Late Woodland types for the Upper Piedmont region. The Napier series is a fine sand tempered ware with fine complicated stamped designs. The Connestee series is a thin walled sand tempered ware with brushed or simple stamped surface decorations. There are also cordmarked, check stamped, fabric impressed, and plain varieties (Trinkley 1990).

According to Sassaman et al. (1990:317) Late Woodland occupations in the Savannah River Valley consisted of small habitation sites along all available terrace locations of both tributaries and the Savannah River. This increasing use of low-lying terraces suggests the increased exploitation of floodplain habitats, perhaps including maize agriculture, although no direct evidence has yet been found at the Savannah River Site.

Keel (1976) reported on the Garden Creek Mound No. 3 which contained a dominant Connestee component based on George Heye's 1915 examination of the mound. Later work at Garden Creek Mound No. 2 examined a portion of a village with a large quantity of Connestee remains. A number of post holes were exposed revealing one discernable square house with rounded corners measuring about 19 by 19 feet in outline. In addition, there were a number refuse pits and hearths. The hearths included both rock filled and surface hearths. There were also a number of burial pits (see Keel 1976:99). It is likely that Connestee sites in the Upper Piedmont will contain similar features.

Mississippian Period

The South Appalachian Mississippian period, from about A.D. 1100 to A.D. 1640 is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease.[9] The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers.

In the Upper Piedmont, Mississippian pottery includes the Pisgah and Qualla series. Pisgah ceramics are tempered with unmodified river sand, although some earlier examples contain both river sand and crushed quartz. It is decorated with complicated stamping, check stamping and ladder-like rectilinear patterns (Dickens 1970; Holden 1966). It should be noted that the Qualla series extends well into the historic period (ca.1500-1908) and is characterized by complicated stamping and bold incising. Other types described by

[9] Small pox was a major cause of death to a large number of Native Americans during the historic period. The smallpox epidemics of 1734 and 1783 reportedly killed half of the Cherokee population (Hatley 1993).

Egloff (1967) include burnished, plain, check stamped, cord marked, and corncob impressed. At Tuckasegee brushed examples were also identified (Keel 1976). Other artifacts associated with the Mississippian period include triangular projectile points, flake scrapers, microtools, gravers, perforators, drill, ground stone objects (celts, pipes, and discoidals), and worked shell and mica (Keel 1976).

Very little evidence of Mississippian period occupation was found in the Laurens-Anderson inter-riverine survey area which is not surprising given the focus on riverine resources during this time period. Very little evidence of Mississippian occupation has been documented at the Savannah River Plant and no formal settlement-subsistence model has been created for this area (Sassaman et al. 1990:317). However, Anderson (1994) has provided a detailed examination of evidence for political change at Mississippian sites in the Savannah River Valley and should be consulted for more information.

Excavations at large Mississippian sites in the Upper Piedmont include work at the I.C. Few site which was examined as a part of the Keowee-Toxaway Reservoir project sponsored by Duke Power Company (Grange 1972). Simpson's Field (38AN8) on the Savannah River was also investigated during the Richard B. Russell Reservoir studies (Wood et al. 1986). Work at the Chauga site (38OC47) in nearby Oconee County evidenced occupation in the Early and Late Mississippian period. Ten stages of mound building were found at the site along with burials and palisades. There is evidence for increasing impoverishment of the residents through time, since burials associated with the latest phases of mound building contained fewer grave goods than earlier phases in both the occupation during the Early Mississippian and the Late Mississippian (Anderson 1994:303-305). Homes Hogue Wilson (1986) examined burials from the Warren Wilson site in western North Carolina and provided some preliminary conclusions regarding social structure based on location of burials according to age and sex. For instance, she found more males than females were buried under structure floors. These males included primarily those under 25 or over 35 years old. She also found that individuals buried inside of structures were more likely to have burial goods than those buried in public areas. Burial feature types included pit burials, side-chambered burials, and central-chambered burials. Studies such as this can give great insight into the social organization of prehistoric societies.

The largest amount of regional work has taken place in the North Carolina mountains at sites such as Tuckasegee, Garden Creek, and Warren Wilson. At Tuckasegee a possible town house was uncovered measuring about 23 feet in diameter with a central hearth (Keel 1976). At Warren Wilson several roughly square structures were uncovered and they all measured on the average about 21 feet square. Burials were common inside of these houses and pit features were abundant. Artifacts at the Warren Wilson site included ceramics from the Swannanoa series up through the Pisgah series. (Dickens 1970).

Historic Overview

General accounts of Newberry County history are presented in Pope (1973) and Central Midlands Regional Planning Council (1974). Mills' *Atlas* also shows the location of prominent settlements and localities in the early nineteenth century and gives a brief physical and economic description of the area in the 1820s (Mills 1826).

Newberry County was settled in the middle of the eighteenth century, primarily by Scotch-Irish, English, and Germans. As part of the Old Ninety Six Judicial District established in 1769, this area retained its frontier characteristics until after the Cherokee War. Newberry County was formed in 1785 when Ninety Six District was divided into six counties (Central Midlands Regional Planning Council 1974:138).

The Ninety Six District was crippled by effects of the Cherokee War and the area soon after fell prey to a wave of lawlessness until the 1760s when the Regulators were organized by back country citizens. The Regulator movement died out in 1769 when long overdue attention to the governmental needs of the back country was given by the Charleston authorities.

Newberry's involvement in the early stages of the American Revolution was largely irrelevant as most

settlers in this area had no quarrel with the English King and little identity with coastal society's politics which urged separation from Britain. Local citizens became outraged by actions of Tory leader Robert Cunningham and the infamous Redcoat officer Banastre Tarleton which converted the citizens into ardent partisans. Guerilla warfare ensued between 1779 and 1781, laying waste to the area. Three Revolutionary encounters took place in the county: Williams Plantation, 1780; Mudlick Creek and Bush River in 1781 (Central Midlands Regional Planning Council 1974:138).

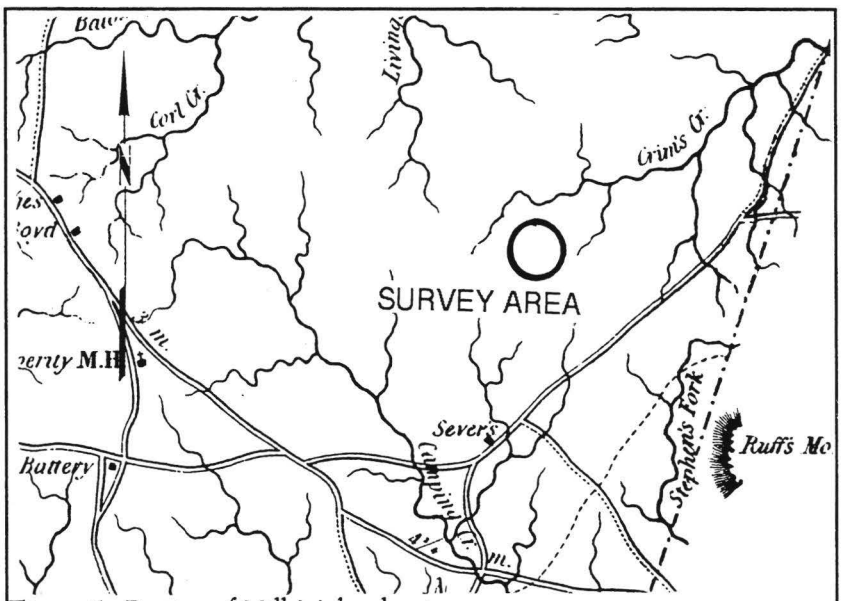

Figure 5. Portion of Mills' *Atlas* showing survey area.

With the introduction of the cotton gin in the late eighteenth century, the area experienced radical changes in its society and economy. Initially an area of small, independent and diversified farmers, it became characterized by large cotton plantations, a reliance on slavery, and a one crop system ruinous to the soil. By 1800 the white population had decreased from 11,000 to 7,000 while the black population increased from 2,000 to almost 14,000 by 1860. Mills' *Atlas* of 1825 shows the region around the survey area and the survey area itself as uninhabited (Figure 5).

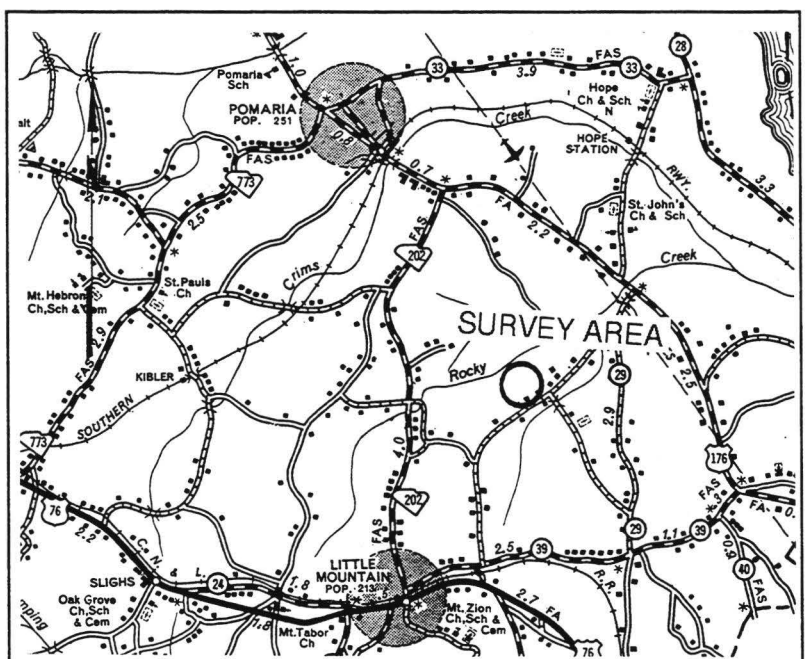

Figure 6. Portion of the 1950 General Highway and Transportation Map of Newberry County.

Westward emigration of people lured by the expanding cotton kingdom and increasing political polarization defending slavery grew in the first half of the nineteenth century, leading to almost unanimous citizen support in the area for nullification and secession. Although seriously stricken by the Civil War, the county was spared from the devastation experience by other South Carolina counties (Central Midlands Regional Planning Council 1974:139). This is evident by 1950 when at least 10 structures were built in the vicinity of the project area (Figure 6).

SURVEY METHODS

Methodology

The initially proposed field techniques involved the placement of shovel tests at 100 to 200 foot intervals, dependent on topography, within the proposed corridors and square survey tract. The interval would depend on the field assessment — if the topography was gentle, tests would be conducted at 100-foot intervals. If, on the other hand, areas of steep slopes were encountered then the test interval would be increased to 200 feet.

All fill would be screened through ¼ inch mesh, with each test numbered sequentially. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1 foot. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

Should sites (identified as three or more artifacts within a 25 foot diameter) be identified by shovel testing, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigator.

The actual field methods did not deviate much from those initially proposed. As previously reported, the corridors were cleared and trees were marked with white paint. The square parcel of land was marked with stakes. It was discovered that the slopes in the area were not too steep, so all shovel tests were placed at 100-foot intervals. The site work along the square tract, combined with subsequent erosion, revealed a thin or missing Ap horizon in most of the shovel tests (generally under 0.4 foot). We did not seek to excavate tests into the red clay subsoil.

The eastern half of the square survey area consists of a cultivated field. This heavily plowed field had good surface visibility due to the immaturity of the plants. A pedestrian survey was performed along with shovel testing at 100-foot intervals to maximize coverage of the area. The western half of the square parcel is characterized by lightly wooded areas. Shovel testing produced eroded soils with a red clay subsoil.

The southwestern portion of the transmission line corridor was also located in the wooded portion of the survey area and produced red clay subsoil, while the southeastern corridor passes through wooded areas and a portion of the farm lawn area belonging to the property owner. Because of the disturbance of soils in the area, shovel tests produced a variety of different profiles.

A total of 25 shovel tests were conducted along the corridors and 86 shovel tests in the square tract for a total of 111 shovel tests.

Site Evaluation

Sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

> the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location,

> design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site, providing a framework for the evaluative process;
- identification of the important research questions the site might be able to address, given the data sets and the context;
- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and
- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to other documentation and where typically only one site is being considered.

Laboratory Analysis

The cleaning and analysis of artifacts was conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the South Carolina Institute of Archaeology and Anthropology, the closest regional repository. The site forms for the identified archaeological site (38NE509) and cemetery (38NE510) have been filed with the South Carolina Institute of Archaeology and Anthropology. Field notes have been prepared for curation using archival standards and will be transferred to the South Carolina Institute of Archaeology and Anthropology as soon as the project is complete.

Analysis of the collections followed professionally accepted standards with a level of intensity suitable to the quantity and quality of the remains. The diagnostic lithic remains were compared to published typological descriptions for the various projectile points such as Coe (1952, 1964), Oliver (1981), and South (1959). In general, the temporal, cultural, and typological classifications of historic remains follow such authors as Price (1970) and South (1977).

RESULTS

Introduction

The archaeological survey of the proposed transmission corridors and switching station revealed one site, 38NE509, a surface site which has a combination of prehistoric lithics and historic ceramics. 38NE509 is recommended not eligible for inclusion on the National Register. Also noted in the area, but not directly on the site, is a small cemetery, 38NE510.

The cemetery, although not directly in the project area, has the potential to be damaged during construction or other activities. Caution should be taken to avoid any action in the vicinity of this cemetery.

Archaeological Sites

38NE509

Site 38NE509 is a surface scatter of prehistoric lithics and historic ceramics (Figure 7). It is situated atop a small ridge top and the surrounding side slope at an elevation ranging between 450 and 480 AMSL. The site is located between two creeks, Rocky Creek, about 1,300 feet west of the site, and Summer Branch Creek, about 2,000 feet to the east. Topography in the immediate area ranges from gently sloping to slopes of about 6 to 10%, although the site itself is located on a relatively level area.

Typical vegetation in the area includes both pines and hardwoods, but the site is located in a severely plowed field. At the time of the survey, crops were planted, but surface visibility was still good given the disturbance of the surface. The soil type is identified as Lloyd sandy loam (Camp 1960). Only a few shovel tests produced the Ap horizon of dark brown (7.5YR4/4) sandy loam typical of this soil series. The plowing and erosion in the area has resulted in most tests revealing a surface B1 horizon of red (2.5YR4/6) clay loam overlying a dark red (2.5YR3/6) clay subsoil.

A central GPS UTM coordinate for the site is E463649 N3786842 (NAD27 datum). The site is accessible from S-167 (Parr Road), north of I-26 and a dirt road runs northwest through the property to the site approximately 400 feet off S-167.

Although shovel tests were completed throughout the site area at 100-foot intervals, the site was discovered by a pedestrian survey of the field. All artifacts were found on the surface of the field and no shovel tests produced any artifacts. All of the prehistoric artifacts were made of quartz and included a possible Savannah River stemmed base, a projectile point tip, a base of a projectile point, and five flakes. Also found were two pieces of whiteware and one piece of porcelain. It is hard to determine the date of the historic whiteware and porcelain, but the Newberry County General Highway Map of 1950 (Figure 8) shows several structures, most likely small farm units, along the road in the general area which may have contributed to the deposition of the ceramics. The site dimensions are approximately 400 feet east-west by 500 feet north-south, but artifact distribution was extremely sparse within this area with only a total of eleven pieces found. It is likely that the surface scatter extends the boundaries of the original survey area.

The National Register potential of 38NE509 is contingent on several factors such as the data sets present, site integrity, and ability to address significant research questions. The prehistoric component consists of only eight specimen. While the data sets for this component do include three tool fragments–one of which can be securely dated to the Late Archaic–there is no indication of in situ remains or features. The site has been so extensively plowed out and eroded that the site integrity has been lost. As a result, the prehistoric site component lacks the ability to address significant research questions which are appropriate for the Late Archaic period.

Similarly, the historic component is very

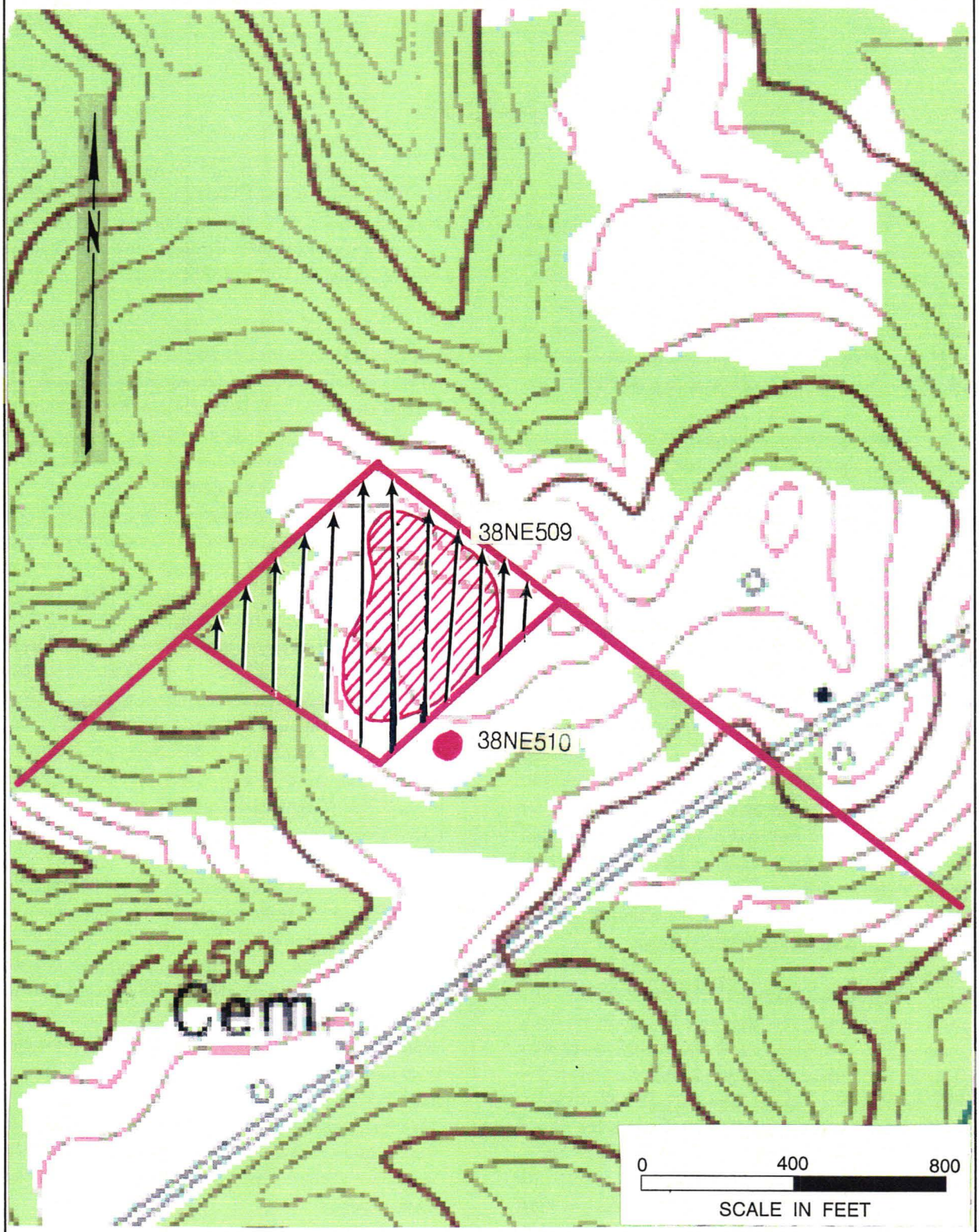

Figure 7. Survey area with 38NE509 and 38NE510.

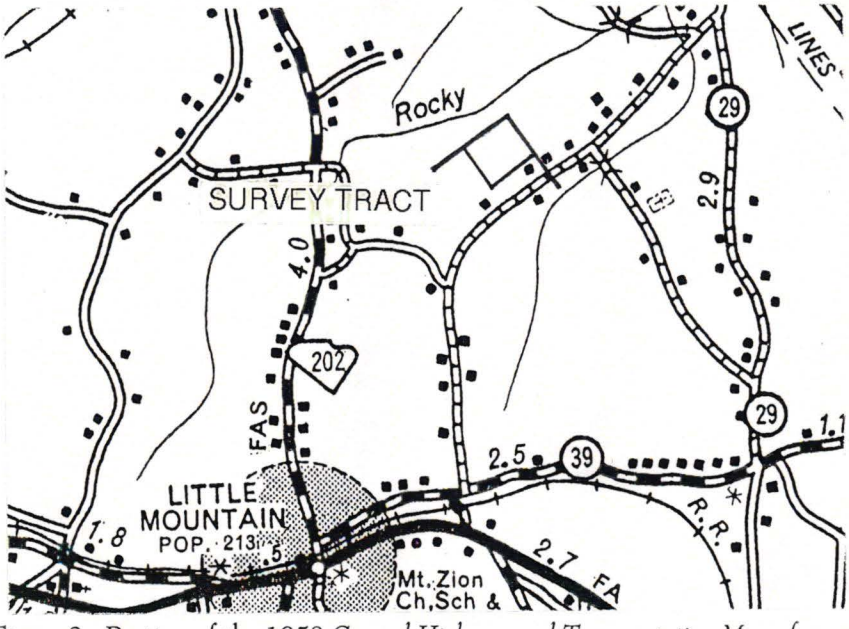

Figure 8. Portion of the 1950 *General Highway and Transportation Map of Newberry County* (increased 200%).

sparse–consisting of only three specimen. The failure to recover additional, and more varied remains, coupled with the extensive erosion indicates that this component cannot address significant questions appropriate for late nineteenth or early twentieth century low

We recommend that the site is not eligible for inclusion on the National Register of Historic Places. No additional management activities are recommended, pending concurrence by the State Historic Preservation Office.

38NE510

Site 38NE510 is a historic cemetery situated less than 100 feet from the southeastern edge of the proposed switching station. The elevation is about 470 feet AMSL. No shovel testing was conducted at the site. The central UTM coordinates are E463628 N3786738 (NAD27 datum). While cultivated fields surround the area, the cemetery itself is enclosed in a small area of thick hardwoods (Figure 9).

The estimated size of the cemetery is about 75 by 80 feet, although it may have extended into the area where the fields are now cultivated. Three probable graves were found, each marked by stones of quartz or

Figure 9. View of hardwoods surrounding the cemetery.

Figure 10. View of head and foot stones.

quartzite (Figure 10). No other headstones or visible depressions were present.

This site is recommended potentially eligible for inclusion on the National Register of Historic Places under Criterion D (potential for historic information). There is a potential for the recovery of human skeletal remains and possibly other funerary remains. Although small, this cemetery may contribute to research concerning the small, poor, agricultural society of this area of the South Carolina Piedmont. It is also possible that bioanthropological data may be found which could contribute to the understanding of diet, disease, and the overall daily life of the people buried here.

Cemeteries have the potential to provide exceptional data sources, even if they are never excavated. There are a number of research issues appropriate to archaeological investigations that do not require destructive techniques. The use of a pentrometer, for example, can often help document the exact location and orientation of graves.

Of course, graveyards are also protected by South Carolina law (e.g. 16-17-590 et seq., Code of Laws of South Carolina, 1979, as amended). Nevertheless, we recommend that the project take proactive steps to ensure the preservation and protection of this site.

Given the proximity of construction to this cemetery, we recommend clearly marking the cemetery on all construction documents with a clear note on the drawings and plans that the area is off limits to all construction activity. Furthermore, the area should be made off-limits to all contractor personnel. The project sponsor should also fence this area using high visibility barrier fencing.

CONCLUSIONS AND RECOMMENDATIONS

This study involved the examination of approximately 2,000 feet of corridor space for powerlines and a 700 foot square parcel of land to be used as a switching station. The powerlines will be linked to existing lines in the area. This work, conducted for Sabine & Waters, examined archaeological sites found on the proposed areas and is intended to assist Santee Cooper comply with their historic preservation responsibilities.

The majority of the survey area was under cultivation at the time of the survey, but pines and hardwoods were also encountered. Shovel tests were conducted at 100-foot intervals and revealed land that has been heavily plowed and eroded with red clay encountered on average 0.4 feet below the surface. Lloyd sandy loams dominate the cultivated field area with an Ap horizon, where present, of dark brown sandy loam over a dark red clay subsoil, common for this region of the piedmont. Cecil sandy loams were also found which have a brown sandy loam A1 layer over a yellowish brown sandy loam and a red clay subsoil. Only a few shovel tests produced Enon sandy loams which have a thin layer of very dark grayish-brown sandy loam over a brown sandy loam and a strong brown clay subsoil.

While years of plowing has provided better surface visibility, it has also resulted in considerable loss of surface soil and damage to archaeological resources. As a result of the investigations, one surface site, 38NE509, was discovered. Due to limited data sets, low site integrity, and inability to address significant research questions, this mixed prehistoric and historic site is recommended not eligible for inclusion on the National Register of Historic Places.

A cemetery (38NE510), was also identified. Under South Carolina law (Section 16-17-590 et seq., Code of Laws of South Carolina, 1979, as amended) this site is protected. Although not directly in the survey area, special care should be taken to ensure future preservation and prevent damage of the site. This will entail clearly marking the cemetery and making a note on the drawings and plans that the area is off limits to all construction activity. Furthermore, the area should be made off-limits to all contractor personnel. Future preservation may include erection of a fence to mark its location.

It is possible that archaeological remains may be encountered in the area during construction activities. As always, the utility's contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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